

REMARKS

Claims 1-7 are pending in the application. Claims 4-7 are newly added via this amendment.

35 U.S.C. § 102:

Claims 1-3 are rejected under 35 U.S.C. § 102(b) as being anticipated by Egashira et al (U.S. Patent 5,559,188 [hereinafter “Egashira”]). Applicants respectfully traverse this rejection in view of the following remarks.

Rejections under 35 U.S.C. § 102 are proper only when the applied reference discloses each feature found in the claims. Egashira fails to disclose each feature found in claim 1, thus requiring withdrawal of the rejection.

An exemplary, non-limiting embodiment of the invention relates to a golf ball comprising a core and a cover of one or more layers. It has been found that when a cover layer is composed mainly of a mixture of an amino-terminated block polymer and an ionomer resin, the golf ball is significantly improved in regard to at least rebound, durability, scuff resistance and moldability. According to an exemplary embodiment, the ionomer resin is blended with a specific proportion of a specific resin component in the form of an amino-terminated block polymer, both the components may be fully compatible or miscible. The resulting mixture is a homogeneous ionomer resin mixture which is flexible, resulting in the golf ball having improved hitting feel, controllability, rebound, durability, and scuff resistance when using the mixture as a cover material. Thus, it is an aspect of the invention to blend the amino-terminated block polymer in order to exhibit the inventive effects.

On the other hand, Egashira et al. (5,559,188) disclose a cover in a golf ball that is formed of a resin composition comprising 10 to 60 parts by weight of a thermoplastic elastomer having a crystalline polyethylene block and 90 to 40 parts by weight of an ionomer resin. However, the cover of claim 1 is composed mainly of a mixture of an amino-terminated block polymer and an ionomer resin, which is different from the cover composition of Egashira et al. In particular, a thermoplastic elastomer having a crystalline polyethylene block in Egashira et al. differs from an amino-terminated block polymer. The Examiner is requested to not ignore the feature of "an amino-terminated block polymer."

The inventors understood in filing the present application that there were sufficient differences between the invention and the cited reference in regard to the cover components and its effects. This is evidenced in the present specification on p. 1, line 23-p. 2, line 7, where it is described that:

"To overcome these problems, Egashira et al, USP 5,559,188 proposed the blending of a thermoplastic elastomer having a crystalline polyethylene block with an ionomer resin for rendering the ionomer resin flexible. According to this patent wherein a cover outermost layer is formed of a composition comprising an ionomer resin and a specific amount of a thermoplastic elastomer having a crystalline polyethylene block, the golf ball has a soft pleasant hitting feel, a minimized decline of repulsion or rebound, and resistance to scuffing upon iron shots.

However, simple blending of the ionomer resin with the thermoplastic elastomer often suffers from incompatibility therebetween. If a composition which has not been fully homogenized is used and molded into the cover outermost layer, there is a possibility that the layer be fluffed and ridged during grinding after molding, or the golf ball be reduced in rebound. It is described that the addition of a carboxyl or epoxy-modified olefin polymer as a third component is effective for improving the compatibility. The addition of such a third component, however, is impractical because the fluidity of the resin

composition can be remarkably reduced to interfere with injection molding.”

The Examiner’s attention is also directed to Examples and Comparative Examples 1-3, 4 of the present specification. In the Comparative Examples 1-3, 4, “Dynaron 6100P/4600P” is used in the cover and the C-EB-C or S-EB-C block copolymer having a crystalline olefin block corresponds to the thermoplastic elastomer having a crystalline polyethylene block disclosed in Egashira et al. These tests demonstrate that the Comparative Examples are inferior to the other Examples in regard to rebound, durability and moldability and, as such, the golf ball of Egashira et al. would be inferior to the invention in a similar regard.

Accordingly, as described above, the cover of Egashira et al. differs from that of the present invention and fails to disclose each feature found in claim 1, requiring withdrawal of the rejection thereof under 35 U.S.C. § 102(b). The rejection of dependent claims 2 and 3 should likewise be withdrawn at least by virtue of these claims respectively depending upon claim 1.

NEW CLAIMS:

Applicants add new claims 4-7 to obtain more varied protection for the invention. These claims are deemed patentable over Egashira et al. at least by virtue of their respective dependencies on claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. §1.111
U.S. Appln. No. 10/668,314

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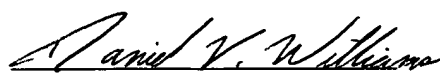
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